

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits  | Search Query   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|-------|--|---|------------------|---------|---------------------|
| S1    | 18502 | triac  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2009/01/31<br>16:38 |
| S2    | 46043 | triac TRIode   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2009/01/31<br>16:38 |
| S3    | 5695  | (triac TRIode) with load   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2009/01/31<br>16:39 |
| S4    | 6427  | (triac TRIode) with load   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/01/31<br>16:39 |
| S5    | 102   | (triac TRIode) with load same (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage           | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/01/31<br>16:40 |
| S6    | 84    | (triac TRIode) with load same (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and power | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/01/31<br>16:55 |

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| S7  | 33   | (triac TRIode) with load same (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and power and (CPU computer microcomputer processor microprocessor microcontroller controller)                   | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2009/01/31 16:55 |
| S8  | 9    | (triac TRIode) with load same (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and power and (CPU computer microcomputer processor microprocessor microcontroller controller) and zero and feed | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2009/01/31 16:55 |
| S9  | 16   | ("4860149").PN. OR ("5892391").URPN.  | US-PGPUB; USPAT; USOCR                                   | OR | OFF | 2009/01/31 17:35 |
| S10 | 8974 | (triac TRIode scr) with load  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:37 |
| S11 | 674  | (triac TRIode scr) with load same gate near3 voltage  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:37 |

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| S12 | 230 | (triac TRIode scr) with load same gate near3 voltage same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:37 |
| S13 | 63  | (triac TRIode scr) with load same gate near3 voltage same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )and (CPU computer microcomputer processor microprocessor microcontroller controller)                        | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:38 |
| S14 | 0   | (triac TRIode scr) with load same gate near3 voltage same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )and (CPU computer microcomputer processor microprocessor microcontroller controller) and feed near3 netwrok | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:38 |

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| S15 | 1    | (triac TRIode scr) with load same gate near3 voltage same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )and (CPU computer microcomputer processor microprocessor microcontroller controller) and feed near3 network                    | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:38 |
| S16 | 1    | "327"/\$.ccls. and (triac TRIode scr) with load same gate near3 voltage same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )and (CPU computer microcomputer processor microprocessor microcontroller controller) and feed near3 network | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:41 |
| S17 | 7    | "5734289"  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:42 |
| S18 | 13   | "5734289" "5629571"  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 17:44 |
| S19 | 2313 | triac .ti.   | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/01/31 18:36 |

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| S20 | 7888 | triac and control\$4 .ti.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2009/01/31<br>18:36 |
| S21 | 1463 | (triac and control\$4) .ti.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2009/01/31<br>18:36 |
| S22 | 9    | S21 and (triac TRIode) with load same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2009/01/31<br>18:37 |
| S23 | 7    | S21 and (triac TRIode) with load same<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and current | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2009/01/31<br>18:44 |
| S24 | 13   | S21 and load and<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and current                      | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2009/01/31<br>18:44 |

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| S25 | 11   | S21 and load and<br>(Measure measured<br>measuring sensing<br>sensor sensed detect<br>detected detector<br>detecting determine<br>determined<br>determining ) with<br>gate with voltage and<br>current and zero | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/01/31<br>18:44 |
| S26 | 3658 | triac and current with<br>sens\$3   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/02<br>09:15 |
| S27 | 4132 | triac and current with<br>sens\$3   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/02<br>09:15 |
| S28 | 578  | triac and current with<br>sens\$3 and digital and<br>analog and gate and<br>pulse   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/02<br>09:16 |
| S29 | 507  | triac and current with<br>sens\$3 and digital and<br>analog and gate and<br>pulse and zero  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/02<br>09:17 |
| S30 | 501  | triac and current with<br>sens\$3 and digital and<br>analog and gate and<br>pulse and zero and<br>power   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/02<br>09:18 |
| S31 | 466  | triac and current with<br>sens\$3 and digital and<br>analog and gate and<br>pulse and zero and<br>power and compar\$4   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/02<br>09:19 |

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| S32 | 448 | triac and current with sens\$3 and digital and analog and gate and pulse and zero and power and compar\$4 and resist\$4  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 09:20 |
| S33 | 1   | S32 and (triac TRIode) with load same (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and power | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 09:30 |
| S34 | 61  | S32 and (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) with gate with voltage and power                               | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 09:31 |
| S35 | 2   | "20010028239"  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 10:00 |
| S36 | 2   | "20010028239" and current  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 10:01 |
| S37 | 0   | "20010028239" and current adj sensor   | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/02 10:01 |

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| S38 | 1    | "20010028239" and current near3<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )       | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2009/02/02 10:01 |
| S39 | 16   | "5892391" and current near3 (Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )              | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2009/02/02 10:11 |
| S40 | 18   | ("3990000"   "4009091"   "4740883"   "4800330"   "4968927"   "5239252"   "5614811"   "5818707"   "5892391").PN. OR ("5994883").URPN.                             | US-PGPUB; USPAT; USOCR                                   | OR | OFF | 2009/02/02 11:01 |
| S41 | 2242 | triac same current with<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining )               | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/02/13 09:59 |
| S42 | 9    | triac same current with<br>(Measure measured measuring sensing sensor sensed detect detected detector detecting determine determined determining ) same equation | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2009/02/13 10:00 |

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| S43 | 5   | triac same current with<br>(Measure measured<br>measuring sensing<br>sensor sensed detect<br>detected detector<br>detecting determine<br>determined<br>determining ) same<br>equation same<br>(threshold\$2 limit\$3<br>boundar\$4) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>10:00 |
| S44 | 0   | triac and kxi   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>10:07 |
| S45 | 471 | (triac and current).ti.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>10:07 |
| S46 | 0   | S45 and equation  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>10:08 |
| S47 | 4   | S45 and converter<br>same (digital analog)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>10:08 |
| S48 | 7   | "602444"  | USPAT   | OR | OFF | 2009/02/13<br>12:14 |
| S49 | 21  | "602444"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>12:14 |
| S50 | 0   | "602444" and triac  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>12:14 |

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| S51 | 1     | "602444" and threshold  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>12:14 |
| S52 | 2535  | triac and (voltage resistive) with divider                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>13:33 |
| S53 | 723   | triac same (voltage resistive) with divider                   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>13:33 |
| S54 | 118   | triac same (voltage resistive) with divider same comparator   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>13:33 |
| S55 | 17    | triac same ( resistive) with divider same comparator          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>13:35 |
| S56 | 7     | triac same (resistive) with divider same comparator same gate | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/02/13<br>15:31 |
| S57 | 24    | (triac and current).ti. and comparator                        | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/02/13<br>15:49 |
| S58 | 21127 | triac   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/11/09<br>08:45 |

**EAST Search History (Interference)**

| Ref # | Hits | Search Query                  | DBs         | Default Operator | Plurals | Time Stamp       |
|-------|------|-------------------------------|-------------|------------------|---------|------------------|
| L1    | 696  | 702/57.ccls.                  | USPAT; UPAD | OR               | ON      | 2010/02/25 11:24 |
| L2    | 3    | 702/57.ccls. and triac        | USPAT; UPAD | OR               | ON      | 2010/02/25 11:33 |
| L3    | 95   | "702"/\$.ccls. and triac      | USPAT; UPAD | OR               | ON      | 2010/02/25 11:33 |
| L4    | 6    | "702"/\$.ccls. and triac.clm. | USPAT; UPAD | OR               | ON      | 2010/02/25 11:33 |

2/25/2010 11:34:23 AM

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